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MISCELLANEOUS.

Abstract of a Clinical Lecture.

DELIVERED BY MR. EDMON OWEN, LONDON, ENG.

Abstracted by A. M. Phelps, M.D, Professor of Orthopædic Surgery, Post Graduate School and Hospital, New York City.

Spastic paralysis; talipes equino-varus.—The next case I have to show is a very interesting one. T. G., eleven years of age, came into the hospital in May, 1893. He was then ten and a half years of age, and was the subject of spastic paraplegia,—that is to say, the reflex action in his lower extremities was uncontrolled, because of some affection of the spinal cord. The cells of the anterior cornu of the grey crescent of the cord are in connection with two sets of filaments,—motor and sensory. The grey crescent is, in fact, a small, independent brain, responsible to the supreme authority of the encephalon. If we cut off the connection between the grey matter and the encephalon there can evidently be no longer any direct control of the grey nerve-tissue,—thus, for instance, on gently pinching the leg, we get spasmodic and uncontrolled contraction of the muscles of the limb. The reflex-action is ordinarily controlled by inhibitory filaments running from the brain to the grey matter of the cord through the antero-lateral column of the cord; and if anything happens to interfere with the integrity of these filaments the reflex acts lose inhibition and run riot. They had run riot in this boy. As he attempted to walk, contact between his foot and the ground caused spasmodic contraction of the muscles to take place, and he walked in the manner characteristic of spastic paraplegia, as I will demonstrate shortly in another case. He walked with stiffened legs, scraping his toes along the ground. In this boy the spastic paraplegia was not extremely well marked, but it was sufficiently obvious. There was spasmodic contraction of the calf muscles particularly, causing elevation of the heels, so that as he walked his toes were constantly catching on the ground. Moreover, the feet were constantly extended and inverted, in the position of talipes equino-varus.

The question was, what could be done for him? Through some early disease of the antero-lateral columns of the cord, he had lost inhibition in his legs and feet centres, and it was altogether a most unpromising case for treatment. But we thought we would give the boy a chance by the open operation of Phelps, of New York, for talipes equino-verus. The result is that he now stands with his feet perfectly flat; there is neither inversion nor eversion, and, although there is still some clasp-knife action, he walks, so far as my part of the business is concerned, a perfect plantigrade. You will see the high stepping action as he goes along the floor, but fortunately, his central nervous affection has greatly improved.

The case has made a considerable impression on me, because, from a surgical point of view, it was extremely unpromising. I can remember the time when a surgeon would have refused to operate upon a case of talipes equino-varus, or any other form of talipes, which was secondary to central nervous disease, because the outlook was so poor, All such miserable cripples were, therefore, left without efficient treatment, and were allowed to drift on from bad to worse. I would not have operated on this boy had I not been particularly conversant

with the operation of Phelps,—a man who has done a great deal for orthopædic surgery, and who is, by-the-way, a general surgeon, not a special orthopædist. I think the time is coming when all bad cases of talipes equino varus, except in very young children, will be operated upon by this open method. It seems to me, at least, to be inevitable. Here, truly, is a happy result of the thorough operation. All the credit of it is due to the large view and bold treatment of my American colleague, Dr. A. M. Phelps. I am not depreciating specialism altogether, but I have no hesitation in saying openly that I think specialism is going a little too far. May I here remark that probably the greatest advance that has been made in recent years in connection with the treatment of skin disease was made by a general, not a special physician,—the treatment, namely, of inveterate cases of psoriasis by thyroid extract. If a man works within too narrow limits he is apt, I think, to lose sight of great principles, and take a contracted view of his surroundings. I do not say that he *is*, but certainly he is apt to be, like a man working in a valley. And in his work he is apt to develop a certain amount of professional myopia.

Phelps' Operation:—A word or two with regard to Phelps' operation:

The old-fashioned and orthodox treatment of club-foot consisted in the subcutaneous division of tendons and fascia,—division of the tibialis posticus, the flexor digitorum, and, perhaps, the plantar fascia. Then, with a good deal of subsequent manipulation and tedious working with a mechanical Scarpa's shoe, the foot was got into a more or less satisfactory position. Afterwards the tendon of Achilles was divided. This large tendon, you remember, was divided last of all. It was left for the purpose of acting as a fixed point, so that from it the surgeon might be able to exert, with Scarpa's shoe, a certain amount of flexion and eversion. But if you happen to be dealing with a slight case of talipes equino-varus, it will very likely suffice, if you divide only the tendon of Achilles. When this is effected you may be able to correct a very considerable amount of inversion as well as extension of the foot. I would, therefore, strongly advise, in every case, division of that structure first. That is a great point, but not an original one, in Phelps' operation. It is characteristic of Phelps' operation that, instead of dividing the inverting structures subcutaneously, the open method is employed, so that the surgeon can see exactly what he is doing, and thus divide nothing that does not require division and everything that does.

(The last paragraph does not quite state all. The other reason, and by far the most important, is that the skin cellular tissue and fibrous tissue on the inner side of the foot are short, and these tissues must be lengthened either by cutting, tearing or stretching, before the foot can be brought to a super-corrected position, and cutting is the least harmful and most rapid,—hence the open cut.—PHELPS.)

The incision is made, as I show you in this other child, from the dorsum of the foot across the inner side, just over the head of the astragalus, and is carried down to the sole. The internal saphenous vein is possibly divided, though it is often seen and avoided. The deep fascia has then to be cut, as it covers the abductor hallucis; then the tendon of the tibialis posticus which supports the head of the astragalus, and the tendon of the flexor longus digitorum underlying the head of the astragalus. Going a little further, the surgeon opens a joint between the astragalus and scaphoid. Now comes what I consider to be the most important point in the whole operation,—the anterior part of the internal lateral ligament is freely cut. You remember how this ligament is arranged. The anterior fibres are not connected with the astragalus, but run over it to be attached to the scaphoid bone. The anterior part of the internal lateral ligament is peculiarly tight and resistant in talipes equino-varus, and, more than any other structure, requires attention. As soon as that is done, the foot is everted and the joint between the astragalus and scaphoid opened up. The other resisting structures in the foot are then dealt with. Amongst

them will come the middle piece of the plantar fascia, which is the strongest part, and, very likely, the flexor brevis digitorum. Then the inferior calcaneo-scaphoid ligament has to be divided because it is holding the tuberosity of the scaphoid up against the sustentaculum tali. The position of the foot is to be improved by increasing the length of the inner border, and that can only be done by opening the joints between the astragalus and scaphoid, a measure which is impossible without division of the inferior calcaneo-scaphoid ligament. After every cut the surgeon wrenches the foot into a slightly improved position; he goes step by step, feeling his way, as it were, with the tip of his finger and the end of his scalpel. Perhaps before the foot can be got into the proper position the long and the short calcaneo-cuboid ligaments have to be divided. After that, the surgeon gives another wrench and gets the foot into an over-corrected position. He dresses the wound lightly with some antiseptic gauze, loosely filling the large cavity, and then he secures the foot in lateral splints of house flannel and plaster of Paris.

It may not be amiss to compare, for a moment in passing, this operation with other radical operations on the foot which consisted in the removal of the wedge-shaped piece from the outer border of the foot. If the apex of the wedge is brought far enough inwards and the base is sufficiently wide, the foot can then be straightened out and brought flat. But this improvement is obtained at the expense of the length of the foot. Different varieties of these operative procedures bear the names of different surgeons,—Davies Colley and Richard Davy,—and there is yet another,—and a very excellent one it is,—which consists in the removal of the astragalus; it bears the name of a well-known provincial surgeon,—Lund, of Manchester. These various procedures have emanated during the last few years from pioneers in orthopædic surgery, all of whom, by-the-by, were general surgeons.

All of these operations. useful as they have been in the evolution of the surgery of club-foot, effected their improvement by shortening the external border or sacrificing some part of the foot; but Phelps' operation improves the position of the foot,—not by shortening or sacrificing anything, but by lengthening the internal border of the foot, and I am satisfied that it is of a very great importance.

The wound having been dressed in the case of this boy, operated on as described, on May 16, the foot was wrenched around into the over-corrected position and encased in lateral splints of house flannel and plaster of Paris. Then for five weeks it was not interferred with. Only to-day the second dressing was taken off, two weeks having elapsed since the first was removed. When the dressing was removed the wound was almost healed, and, as you will see, it must have been an extensive one originally. Mr. Kellock, who, with me, operated on one of this boy's feet some time ago, suggested and carried out an ingenious modification in the detail:—As soon as the foot is lengthened out there is a considerable amount of slack skin upon the dorsal and outer aspect of the foot; so, after the deep operation-wound on the inner side of the foot had begun to granulate, Mr. Kellock raised a large flap of this redundant integument and slipped it into the wound. This graft has done well, and its growth has materially expedited the healing.

(No matter how wide the wound has gaped, in my experience it has always filled in perfectly within six weeks, and within a short time the redundant skin on the outside of the foot has been absorbed. With these observations in mind, I think I would hardly resort to a plastic operation in any case, although I would not condemn the practice. —Phelps.)

The old treatment by Scarpa's shoe required a great deal of attention on the part of the surgeon, who required, in private practice, to make almost daily visits to see how the case was going on, to assure himself that the foot was bearing the restraint, and to alter the screws. According to the new procedure the foot is put up in plaster

of Paris and so left for three or four weeks, the patient being allowed to walk about within a week of the operation.

(Mr. Owen is right in teaching that contraction following paralysis should be lengthened by operation. The senseless prolonged painful stretching treatment followed by some orthopædists is to be deplored. It will be abandoned in the near future. It is as unscientific to attempt, by machines, to stretch these contracted muscles and tendons as it is to follow the same plan of mechanical treatment with the remunerative tendo Achilles Dupuytren contraction and plantar-fascia, now so popular in the circles of certain mechanicians. These paralyzed muscles should be lengthened by interposing an abundance of new tissue, and not by stretching. The latter nearly always relapses, making it remunerative for the mechanic, while the cases operated upon do not—or at least very seldom,—relapse, and the usefulness of the foot is very much superior to those treated by stretching.)

Peritonitis.

BY H. M. OCHILTREE, M.D., HADDAM, KAS.

Peritonitis is a disease common to all localities, met by all physicians of any experience, and all have had one or more fatal cases of it. In a practice extending over a period of twenty-three years it has been my misfortune to meet with a large number of cases.

My first were treated by the opium method. It was not successful in my hands, although I used it as directed in journals and text-books. Post mortem examinations in which I would find large quantities of fluid in the abdomen, the visera glued and matted together, and adhered to parietal peritoneum, would confirm my diagnosis.

In diagnosing this disease the text-books, most of them, say that the temperature will be found to be from 104° to 105°. This is not my experience. In most of my cases the temperature has not been high, usually not going above 102°. I have had fatal cases where the temperature was almost normal, and never rising at any time above 101°.

The principal symptom to rely on is pain around the umbilicus. This pain is aggravated by pressure, change of position, sneezing and coughing. The abdominal walls are rigid, the legs are drawn up, the breathing more rapid, and an anxiety of countenance hard to describe, but which occurs only in severe abdominal diseases.

From the start almost constant nausea, the stomach rejecting everything that is put into it.

The vomited matter is of a uniform grass-green color, and resembles green paint. The color will usually be seen on the second or third day of the disease. I have always had this color in my cases of peritonitis, and it is not a fatal symptom, as described by some authors. Bowels usually constipated, and difficulty in passing urine in most cases, which may be increased by the hypodermic use of morphine to such an extent as to require the use of the catheter.

It is almost impossible to diagnose peritonitis from a severe form of enteritis affecting the whole thickness of the bowel. I had a case of this kind, in which the vomiting was constant, and finally became stercoraceous. The bowels were obstinately obstructed, and could not be moved. Rectal injections of even small amounts could not be retained. The pain was not as hard to control as in peritonitis. This case was first diagnosed peritonitis, and finally, from the fecal nature of the vomited matter, obstruction of the bowel of some form.

In this case a post mortem revealed the fact that there was no peritoneal inflammation or obstruction (except from pareses) but that the inflamed part was a portion of the small and large intestines. Cases of this kind I have reason to believe are rare, having met with only one other fatal case which had symptoms similar to the above.

Opium has always been regarded as the sheet-anchor in this severe malady, and after the bowels were first cleaned out was administered to the limit of tolerance, and further catharsis strictly forbidden. I have

tried the above method. It has been found wanting.

The latest plan of treatment is by salines. Although advocated a few years ago in strong language, assuring the reader that it was better than the old opium treatment; yet it has gained ground slowly, so firmly fixed in the minds of the profession has been the opposition to catharsis. When called to a case of peritonitis, my plan of treatment is first to quiet the pain with a hypodermic injection of atropine and morphine, always using the prepared hypodermic tablet. I instruct some member of the family how to use the hypodermic syrringe, and direct them to inject a tablet of morphine every one, two, three or four hours, according to pain. I am careful to direct them to control the pain regardless of the amount required. I never in these cases give opium in any form by the mouth. Administered in this manner it does not give good results. The stomach is usually in such a condition that the opium, if not rejected, is not absorbed, and valuable time is lost before the pain is quieted. There is but one scientific method of administering opium in this disease, and that is hypodermatically. It quickly quiets the pain, assists in relieving nausea, tranquilizes the system, and gives refreshing sleep. Calomel being well retained where there is nausea, I usually leave several small doses of ¼ to ½ grain, according to age, to be given hourly, and the last dose followed by ½ ounce of sulphate of magnesia dissolved in a small quantity of hot water; this dose, to be repeated every four hours until bowels act freely. They are then kept moving once or twice every twenty-four hours by sulphate of magnesia until the case is ready to dismiss, when instructions are given to carefully notice the action of the bowels, and see that they move once daily. Bismuth and lime-water is usually left to control nausea, a very small dose of bismuth being given every 15, 20 or 30 minutes, according to effect, and when nausea ceases, at longer intervals.

Occasionally I have found the nausea so great that a saline would not be retained. In these cases I dissolve one ounce of sulphate of magnesia in six ounces of hot water, and after thoroughly washing out the bowel, inject the solution, and repeat every four hours until the bowels act freely. This injection has always been retained, and produced the desired result, excepting in the severe cases of enteritis before mentioned. As soon as the bowels begin to act freely, nausea is under control, food can be administered, and a bad prognosis can be changed to a favorable one. One of my cases will illustrate a severe type. W. W., aged 22, was taken with a severe form of peritonitis. Scvere pain, elevation of temperature, constant vomiting of a grass-green color, and presented all of the aymptoms of a typical peritonitis. I tried sulphate of magnesia by mouth, but neither it, calomel or anything I could give would move the bowels, being rejected. Injections were given of soap and water with only poor results. Consultation was called early, diagnosis confirmed; prognosis, one chance in a thousand. Consulting physician recommended the opium treatment, laudanum by mouth to limit of tolerance, but said he expected no good results from it in this case. Morphine hypodermically had been freely given. I could not bring myself to do this, although I greatly respected the opinion of my confrere. We both examined the abdomen with a stethoscope, and could hear no indications of any movements of the intestines. No flatus had been passed. In the meantime the young man had been notified by his parents of the prospect, and he made a disposition of his effects, and calmly awaited the result.

At this time I had not used sulphate of magnesia by the bowel. It occurred to me to do so. Movement of the bowel offered some hope. Opium, by preventing this and also still further paralyzing the bowel, offered none. The result justified my course. Three injections were given four hours apart and retained. The stethoscope revealed some peristaltic action, the bowels moved, the nausea began to cease with peristaltic action, and was soon under control when bowels moved. This case made a good recovery. Who will say that this case

would have recovered under the opium treatment? The green sod would now cover his remains had it been used.

I have many times since used salts by bowel and can confidently recommend it. I have not made a post mortem in peritonitis for some time. The combined opium and saline treatment has robbed it of many of its terrors, and if called in season there is every reason to believe that the above treatment will be successful. I have not spoken of mustard poultices to abdomen, bathing, fresh air and diet, which should be principally of milk, eggs, and light food. All these should be carefully attended to. The plan will prove itself by its good results.

The Influence of the Abortive Treatment of Syphillis on the Nervous System.

Therapeutic Gazette.

Deutsch (*Archiv f. Dermatologie u. Syph.*) calls attention to the fact that symptoms of involvement of the nervous system are often among the first of those which show that syphilis has become a constitutional disease. Thus, among the prodromatic, pain in the head, kidneys, psychical disturbances, pallor and nausea are well recognized, and are attributed by Lang to meningeal irritation. Occasionally sluggishness or inequality of the pupils is noticed, neuralgia, greediness, excessive thirst or drenching sweats, all these signs denoting irritation of the brain and its meninges. A similar condition of the spinal cord and its envelopes is indicated in the prodromal and exanthematous period by very marked increase in the reflex excitability of the skin and tendons, followed by a rapid diminution, sometimes amounting to complete absence, which may last for several weeks after the exanthemata have disappeared. All these signs show early involvement of the nervous system, and suggest the advisability of attacking the poison at the earliest possible moment and weakening its virulence. As a matter of personal experience, Deutsch states that in patients who were treated with mercury early—that is, immediately after the appearance of the chancre, or at least before the development of secondaries—symptoms denoting involvement of the nervous system did not develop; whilst in those not treated until secondaries were well marked, such symptoms were the rule. Moreover, so far as tertiary manifestations are concerned, these did not attack the nervous system in cases which received early treatment.

Diphtheria.

Medical Press and Circular.

A doctor of good standing affirms that he obtained in the treatment of diphtheria as favorable results from the administration of a combination of iodide of sodium and salicylate of soda as those reported from the use of the serum therapy, without its risks. His mixture is:

Iodide of sodium, 30 grains.
Salicylate of soda, 1 drachm.
Syrup of orange, 1 ounce.
Water, sufficient to make 8 ounces.

Dose: A tablespoonful every hour for a child.

Out of seventeen cases thus treated, only three ended fatally. Under the influence of the mixture the false membranes become rapidly detached, and their reproduction ceases in a short time completely.

PROF. A. W. VANIMAN, of this city, has in press a book on the muscles of the human body, with arterial and nerve supply, in tabular form. It will be especially adapted to the use of medical students. We know of nothing similar to this now published and most cordially recommend it.

THE secretary informs us that the annual meeting of the Kansas State Medical Society will be held in Representative hall May 16 and 17.

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Topeka, Kansas, Saturday, March 2, 1895.

Medical Bill Fails—Populists Defeat the Bill Regulating the Practice of Medicine.

Topeka State Journal.

It seems strange that politics should enter into such a bill as the one by Mr. Benefiel to regulate the practice of medicine, but such was the case in the Senate at least. There the Populists voted solidly against it.

The bill provides that no person shall practice medicine in this State unless such person is of good moral character and is a graduate of a legally chartered medical institution of good repute, or has been practicing medicine as a means of livelihood continuously in this State prior to the taking effect of the act.

In the House the opposition came principally from the Populists and Mr. Rohrbaugh, though the latter gentleman finally voted for it.

In the House Mr. Winters (Pop., Kiowa) said: "We western people can't support your plug hat doctors. We've got a lot of old women who are better than any of them." The bill passed the House, and in the Senate its friends tried to get it advanced. This required unanimous consent. Senator Cook objected. It was tried again, and again he objected. Then one of the supporters of the bill from the House was secured to come over and call Senator Cook out to talk with him. While he was gone the bill was advanced to third reading. When the roll was called, however, the bill was defeated.

Consumption and the Pest House.

Considerable agitation is evidenced in the Cincinnati papers over the fact that some consumptive cases have been ordered transferred to the Branch hospital, which, it seems, is a pest house. It is certainly unfortunate that these matters should be so freely discussed in the secular papers, and more so since no theory of consumption has reached a point of absolute certainty, and its pathology is still a subject of much investigation by the most eminent men of the profession. We have accepted the bacillus of Koch, and yet there are many unanswerable arguments against the theory. Many prominent pathologists claim that it is possible the bacillus may be secondary to other conditions and other causes of the disease, and while these subjects are still matters of discussion, radical measures which provoke public criticism hinder rather than encourage progress.

Whatever may be the outcome of future investigation into the pathology of consumption, it seems its contagious or infectious nature has been sufficiently demonstrated. No theory, however scientific and logical, can eradicate a fact established upon practical experience and the history of centuries, and such we claim is the fact of the infectious nature of consumption.

We are emphatically in favor of the isola-

tion of consumptive patients. We do not, however, believe they require the quarantine regulations of cholera or smallpox patients. We have advocated the establishment of hospitals for the special treatment of consumptives, yet we believe every essential feature of isolation may be carried out without depriving the patient of intercourse with his friends. In the first place the object of isolation is to protect those with whom he comes in contact from infection. Careful attention to details will, we believe, secure as good results at home as elsewhere. If the patient and his surroundings be kept clean; if his sputum and other discharges be carefuily disposed of; if his rooms be bountifully aired, and his sleeping apartment be occupied by himself alone, we have met all of the indications for complete isolation, and the protection afforded is as complete as if he were confined in a pest house. A few regulations or additional safeguards might well be added as an excuse for the interference of Health Boards or sanitary officers and also for the benefit of the patient. An order for antiseptic spit boxes and an antiseptic atmosphere in the sitting room or the inhalation of antiseptic solutions at regular intervals suggest something of the official dignity and are really of great benefit to the patient. If we recognize consumption as a curable disease, we must not consider our patient as of minor importance. While using every necessary precaution for the protection of others, we must not hazard his chances for recovery by any unduly severe restrictions.

These simple details we have suggested are as essential to the patient's welfare as to the protection of his friends.

The auto-infection of these patients from breathing an atmosphere poisoned by their own exhalations and expectorations and the presence of purulent accumulations in the lung is one of the most serious obstacles to be met in their successful treatment, and we firmly believe that no theory for the treatment of consumption will ever meet universal approval that does not involve these considerations.

Central Branch Society.

The regular meeting of the Central Branch Medical Society will be held at Greenleaf, Kas., on Thursday, March 7. The following is the program:

Introduction of clinical cases; Pneumonia, Dr. Morton, Green, Kas.; Double Hare Lip, Dr. H. H. Humfreyville, Waterville, Kas.; Report of Case, Dr. J. H. Green, Washington, Kas.; Diphtheria Antitoxin, Dr. M. N. Gardner, Greenleaf, Kas.

Headquarters for the Tri-State Medical Society.

The elegant Planter's Hotel has been chosen as the headquarters of the coming meeting of the Tri-State Medical Society. The sessions will be held in the ladies' ordinary, which is large enough to seat several hundred. Committee rooms are adjoining. The management of this celebrated hotel will make unusual efforts to please the visiting doctors. Rates on American plan: When two persons occupy the same room, $3 per day each. On single rooms a reduction of 50 cents per day will be made on all rooms from $4 per day and upwards. This will enable them to give a room with bath for $4 per day. When two persons occupy a room with bath the rate will be $3.50 per day and upwards. European plan, $1.50 per day and upwards.

DR. A. B. PETERS, of Mankato, was re-elected Grand Medical Director of the A. O. U. W. at Wichita this week.

REMEMBER that we will furnish you the JOURNAL for one year and Helbing's Modern Materia Medica for $2.50.

Hepatic Colic.

Reports on Therapeutic Progress.

The Paris correspondent of the *Medical Press and Circular* states that Ferrand made the following statement in his lecture:

1. The gall-stone is formed of a hard and chalky substance called cholesterine and divers coloring matters. Chemically it is ranked among the alcohols, while physically it is a stone of varied form and dimensions. The first question that imposes itself is, Have we at our disposition therapeutic agents capable of acting directly on the calculus, either to dissolve it or break it up? The ancients would answer in the affirmative, for they had a series of medicines which they called lithotritics, because they attributed to them the power of dissolving the calculi. But it is well known to-day that these agents possess at most a preventive action on the formation of these bodies. The writer made some very conclusive experiments in that direction with chloroform, ether, turpentine, and glycerine, and the results in each case were negative.

2. If, however, we are disarmed against the gall-stone in the first element of the malady, is the case the same with the other elements? As soon as the calculus has got stuck in the duct, the course of the bile is arrested, and accumulates above the obstacle, distends the gall-bladder and the biliary canals, producing, as a consequence, turgescence of the whole organ and more or less congestion of the liver, which, not yet disturbed in its intimate structure, continues to secrete the bile, although in less quantity than in the normal condition. But as soon as the tension increases in the biliary ducts, the calculus is pushed forward by the current and falls not infrequently into the intestine. The fact of the expulsion of the stone by tension of the bile forms the basis of expulsive medication. We have consequently to seek those agents which, by increasing the biliary secretion, can facilitate the expulsion of the foreign body, and the substances corresponding to this indication have received the name of cholagogues, in the first rank of which may be placed glycerin. Among others may be mentioned olive oil administered in large doses. Chauffard advises 10 ounces to be taken, but Willemin considers such massive doses unnecessary. In what way the oil acts is as yet an open question. Stewart thinks that it is converted into glycerin and saponifying matter in the intestine, while Willemin believes that the substance does not undergo this change, but by some reflex action arrests the spasm of biliary ducts and the pain caused by the spasm.

Salicylate of sodium is a cholagogue which produces an abundant biliary flux. In many painful cases, where the kidneys were sound, the author obtained good results from this agent. The same may be said of chloroform and ether, both of which can give by reflex action a considerable increase in the biliary secretion. Calomel, so frequently employed as a purgative in hepatic colic, deserves special mention. This salt not only acts in an indirect way on the liver in provoking an increased secretion, but also as a direct stimulant on the hepatic cell. Mercury salts—more, perhaps, than any of the other metalic salts—are arrested in the liver, producing by accumulation the stimulating action which gives to calomel the properties of a cholagogue so universally admitted.

A few alkaloids, recently discovered, supposed to be beneficial in such a case are podophyllin, euonymin, iridin, and baptisin. Of the four, the first two can be counted as evacuators. Benzoate of sodium and lithine have been also recommended.

3. The third indication resides in the painful spasm of the hepatic colic, and the treatment must be directed to that symptom. Naturally, opium and its preparations take the first rank in this direction, and more especially morphine combined with atropine in subcutaneous injections. Belladonna does not diminish the biliary secretion and provokes the contraction of the organic muscles, and by this means favors the expulsion of the calculus. Chloroform and ether have been given internally with much benefit, while external warm applications

are found by the patient to be very soothing. Enemas of cold water have been used very freely, in order to stimulate the perisaltic action of the intestine, but enemas of senna tea, followed by enemas of valerian root or some other spasmodic agent, are to be preferred.

4. There is yet a fourth indication. To treat the congestion incident to hepatic colic, recourse should be had to emollients, poultices, or warm fomentations, and, when these are not well borne or do not succeed, friction with chloroform or opium liniments may be tried. If the inflammation does not yield to this anodyne treatment, leeches, followed by blistering, and small doses of calomel should be ordered. To resume:

First Indication.—No means at our disposal.

Second Indication.—Glycerin, olive oil, salicylate of sodium.

Third Indication.—Injections of morphine, associated with atropine, chloroform, or ether internally; poultices or warm fomentations.

Fourth Indication.—Poultices, frictions with sedative liniments, leeches, blisters, calomel in small doses, intestinal antiseptics.

To Blow or Wash?

British Medical Journal.

In these days of warfare against dirt why don't we wash our noses? Surely they get quite as dirty as our teeth, which we brush so laboriously every day. The civilized nose is, in fact, one of the dirtiest organs of the body; for, so long as civilization, which mostly means crowding, involves the breathing of dirty air, the nose, which is the organ by which the air receives its first preliminary purification, must become loaded with all sorts of nastiness. The man with a cold who is always sneezing and slobbering with his handkerchief is not a pleasant companion; but, for all that, by dint of much "running" his nose at least is washed, and is cleaner within than that of the fine lady who has trained herself never to use the highly decorated little bit of lace which she carries about and calls a handkerchief; for in that nose condense and accumulate the soot, the dust and microbes of our far from cleanly cities. People who suffer from nose diseases have of course to apply various lotions, the efficacious part of many of which is the water they contain, and this they commonly do either by placing the fluid in the palm of the hand and snuffing it up—a process which only draws it through the more open lower passages of the nose; or by means of a nasal douche or syringe, a process somewhat more effectual, but also more irksome. The simple plan is to plunge the face into a basin of clean water, cold or tepid, and take slight snuffs, in and out, while under water. By practice it will be found that before the face has to be withdrawn for breath water can be drawn in and out of the nose several times, filling and emptying the nasal cavities every time, without using any force and without drawing the water into the throat or causing any choking. The state of the water after the performance indicates the necessity for this little operation.

DYSPEPSIA (flatulence):

℞ Sodii bicarb..... gr. x
Bismuth subnit..... gr. x
Peptenzine powder..... gr. x
M. Ft. Chart. No. 12.

Sig. One powder a half hour before eating, preceded by hot water. If constipated the following makes a fine adjunct:

℞ Fr. nucis vomicæ.....ʒss
Fl. cascara sagrada ext. (P. D. & Co.).....ʒii
Tr. cinchona comp. grad.....ʒvi
M. Sig. To be taken before meals in teaspoonful doses.

REMEMBER that we will furnish you the JOURNAL for one year and Helbing's Modern Materia Medica for $2.50.

An Early Grave Complication of Pharyngeal Diphtheria.

The Medical Summary.

A writer in the *Therapeutische Monatshefte*, calls attention to the particular form of diphtheria of the pharynx, which, despite its limited local extension, rapidly kills the patient in two or three days. It has been held that these almost foudroyant cases were to be attributed to a grave infectious myocarditis. Recently, however, the author has observed three cases of this kind where the autopsy showed no trace of myocarditis, but a sub-acute nephritis. The author, therefore, insists upon the importance of systematic examination of the urine from the beginning of diphtheria, even when no symptom points to a renal lesion. The symptoms observed in these cases have been very great frequency of pulse, a semi-comatose condition, delirium, high fever, and marked albuminuria. Guided by these cases the author has been able in a fourth case to combat this nephritis in the beginning by the administration of large quantities of alkaline and saline water (Wildungen) for the purpose of increasing diuresis and relieving the choked up kidneys.

The Medical Examiner.

Protector.

The proportion of bad risks bears a very certain relation to the permancy of every insurance association.

The careful selection of membership depends almost wholly upon a painstaking, systematic investigation into the anticedents and present physical condition of each applicant, and for this we depend upon the local medical examiner. The grand or supreme medical director simply reviews the facts as presented by the local examiner and must depend entirely upon him for a correct statement of facts and a true interpretation of conditions observed.

We cannot be too particular in the selection of our local examiners and we cannot be too stringent in the rules laid down for his guidance.

He should be selected more on account of his medical ability than because he is an active member of the lodge. He should be a recognized officer of the lodge and should be installed and be required to take an oath of office as any other officer. He should receive pay for his services from the lodge rather than from the applicant, so that he may fully realize to whom he is responsible. It is a serious mistake to make the fee too small for, while the low rate for admission may catch some new members, carelessness or neglect on the part of the examiner may cost the order a net $2,000. It is therefore business economy to pay your examiner well for work you wish well done.

Most of the old line companies pay their examiner $5 for each applicant examined and we know of none that pay less than $3. Fraternal societies expect and should require equally as careful examinations as any of the old line companies, yet their maximum fee is never over $2. I do not mean to say that every medical examiner would be influenced in this examination by the size of the fee, for if he have a reputation as a medical man he would hardly hazard it by a careless or inaccurate diagnosis; and again, being a member of the order, he should recognize the fact that his interest is also the interest of the order. We must, however, remember that in the promiscuous selection of local examiners where no rule is observed other than that they be members of the order some incompetent men are selected and some who do not appreciate the full responsibility they assume.

The Racial Factor in Pathology.

Maryland Medical Journal.

The influence of race as it affects predisposition to certain diseases or immunity therefrom, says the *Lancet*, is still very imperfectly understood. It is generally believed that the negro races show a special proclivity to tuberculosis and cholera, an

they are also particularly liable to tetanus. On the other hand, they enjoy comparative immunity from cancer, malaria and yellow fever, and are seldom attacked by diphtheria or dysentery. The yellow races are very prone to ophthalmia and myopia, and insanity is said to be relatively more common among them than among other races; on the other hand, they show greater proclivity than the black races to tetanus, while they are more subject to tuberculosis and cholera than the white races. Among white races and Europeans, M. Bordier, who has recently studied the subject, points out that almost the only observations recorded relate to the Jewish race, which exhibits a special predisposition to diabetes and nervous disease, while on the other hand it appears to enjoy some measure of immunity from croup.

Reduced Rates to the Tri-State Medical Society.

The committee of arrangements of the Tri-State Medical Society announces that railways will give reduced rates to the meeting of the society, which occurs at St. Louis April 2, 3 and 4, 1995. Gentlemen purchasing tickets for St. Louis are requested to ask the local agent for certificate which will be signed by the secretary of the society.

A Practical Theory and Treatment of Pulmonary Tuberculosis.

BY FRANK S. PARSONS, M.D.,

Editor of the Philadelphia Medical Times and Register.

Published by the Medical Publishing Company, 718 Betz Building, Philadelphia, Pa. Price. 25 cents. Paper cover.

This monograph covers seventy-seven pages of a neat little volume. It treats of a subject of universal interest to all scientifically inclined persons.

The author views tuberculosis in a new light, and from a more rational standpoint than any that has recently been advanced. This work, it is safe to say, marks a new era in the study of this disease.

The first pages are devoted to an interesting introductory, illustrative of the present condition of medical thought upon the subject. The causation of tuberculosis is then taken up, and it is admirably and ably shown that the dominant theory regarding the tubercle bacillus as a causative agent is not based on the true pathological condition in the early stage of phthisis. Bacilli are to be regarded only as developments, existing because a favorable medium presents. This medium exists before the bacillus is demonstrable, and consists of the waste elements of the blood congregating in a locality through lymphatic obstructions or stasis.

In the pages devoted to a consideration of symptomatology it is suggested that, in view of the universal dislike of fats by phthisical persons, there doubtless exists a disordered condition of the pancreas, which condition may be congenital or acquired.

Dr. Parsons has based the treatment of consumption on the lines of this new theory, calling attention to the advantages to be gained by elimination, nutrition and oxygenation. The low price of the book places it in reach of everybody, and no physician should be without it.

The Real Value of the Medicinal Peroxide of Hydrogen Preparations Found in the Market.

BY H. ENEEMAN, PH.D., CHEMIST.

Formerly with the Health Department of New York City.

My attention having been recently called to several reports and analyses made by different chemists and published by some medical journals, I concluded to examine all the brands of peroxide of hydrogen which I could find on the market, in order to ascertain the real value of each when intended to be used as an antiseptic remedy, both internally and externally.

The reports on the subject which have come to my knowledge are quite contradictory, and my object is to impart to the medical profession the results of my experiments, which have been made on fourteen fresh samples, purchased by me in duplicate

directly from the manufacturers or their selling agents.

These brands have been tested for the volume of available oxygen, the amount of residue, the degree of acidity, and the amount of soluble baryta salts contained therein, as per following table:

BRANDS.	Vol. of available Oxygen, determined by means of a solution containing 5.665 grammes Permanganate of potash per liter of distilled water.	Residue obtained from 100 C. C. of Peroxide of Hydrogen dried at 120 degrees C.	Acidity expressed in cubic centimeters of Normal Volumetric Soda Solution for 100 C. C. of Peroxide.	Baryta found in Soluble Baryta Salts contained in 100 C. C. of Peroxide.
No. 1. John Bene's Peroxide of Hydrogen Medicinal	10.50	0.1886	2.19	None
No. 2. Hydrozone	27.35	0.2180	3.11	None
No. 3. Larkin & Scheffer's Peroxide of Hydrogen Medicinal	9.65	0.1203	6.75	None
No. 4. Mallinckrodt's Peroxide of Hydrogen Medicinal	9.55	0.1408	1.43	None
No. 5. Marchand's Peroxide of Hydrogen Medicinal	16.55	0.5640	1.29	None
No. 6. McKesson & Robbins' Peroxide of Hydrogen Medicinal	10.95	0.0540	0.44	None
No. 7. Merck & Co.'s Peroxide of Hydrogen Medicinal	0.50	0.2418	4.57	None
No. 8. Oakland Chemical Co.'s Peroxide of Hydrogen Medicinal	10.50	0.0382	0.34	0.0017
No. 9. Peuchot's Peroxide of Hydrogen Medicinal	10.60	0.4674	1.77	0.0018
No. 10. Powers & Weightman's Peroxide of Hydrogen Medicinal	8.40	0.0830	2.03	None
No. 11. Pyrozone, 3 per cent	11.20	0.0534	0.75	None
No. 12. Rosengarten & Son's Peroxide of Hydrogen Medicinal	3.10	0.1002	0.25	None
No. 13. Smith, Kline & French Co's Peroxide of Hydrogen Medicinal	6.15	0.0880	2.60	None
No. 14. E. R. Squibb's Peroxide of Hydrogen Medicinal	12.40	1.0040	12.04	None

By referring to this table it is easily understood that sample No. 2, "hydrozone," is far superior to any other brand which has ever been made, not only on account of its containing a much larger amount of available oxygen, but also owing to the presence of a small quantity of several essential oils, the respective nature of which could not be determined, very likely because they have been submitted to the oxidizing action of peroxide of hydrogen before being used to make "hydrozone."

I attribute to this small quantity of essential oils the great superiority of hydrozone over any other brands of H2 O2 as a healing agent.

When hydrozone is diluted with distilled water, in the proportion of half and half, the resulting mixture contains about 13.5 volumes of available oxygen, and its bactericide power still remains the same as the bactericide power of sample No. 5, which contains 16.55 volumes of available oxygen.

Sample No. 14 comes next to sample No. 5, but it is readily seen that the degree of acidity is entirely too large for the most sensitive diseased mucous membranes.

Sample No. 11, called "Pyrozone," which contains 11.20 volumes of available oxygen, is quite similar to sample No. 6, with the exception that the latter contains a small quantity of salicylic acid. Very likely the salicylic acid has for its object to increase the bactericide power, but, unfortunately, I fear that it impairs the keeping properties of this preparation.

Acidity.—The 14 brands which I have examined contain free acids (phosphoric, sulphuric, muriatic); and I must say that peroxide of hydrogen medicinal should never be made neutral before using, even in the most delicate cases. Neutral peroxide of hydrogen rapidly decomposes under all conditions of exposure.

The keeping properties of H2 O2 solutions vary a great deal with the degree of purity and the percentage of free acids contained therein.

If the proportion of acid is too large, the profession well know that it acts as an irritant upon diseased surfaces. If it is too small the solution don't keep well.

My opinion is that a standard solution of medicinal H2 O2 must answer the following tests:

1. It should contain at least 15 volumes of available oxygen.

2. The quantity of free acids contained in 100 cubic centimetres should require not less than 1 c. c. and not more than 3 c. c. of normal volumetric soda solution, to be made neutral. Such a small quantity of free acid is not objectionable.

3. It should not contain any soluble baryta salts.

4. It must be free from sediment.

It is to be noticed that the brands No. 7 and No. 12 are valueless.

The brands No. 8 and No. 9 are not fit for medicinal uses, owing to the fact that they contain traces of soluble baryta salts.

The brand No. 3 has a heavy sediment of sulphate of baryta, which may be considered inert toward the system, but it is certainly

detrimental to the keeping qualities of this preparation.

Brand No. 14, which is sold as a ten volume solution, is really twelve volumes, but it is too acid. Brand No. 5, which is sold as a fifteen volume solution, is really 16.55 volumes, viz.: About 10 per cent. above the standard.

The brand No. 2, which is sold without any mention of volume, is really a 27.35 volume solution, viz.: Ninety per cent. above the standard.

None of the other brands come up to the standard, but on the contrary they run from 35 to 55 per cent. below.

Increasing the Weight.

The Daily Lancet.

Much has been said and written about the treatment of obesity, but the poor, anæmic, animated skeletons whom we see now on every hand are more or less neglected. It is folly to hope that the administration of minute quantities of iron or other so-called tonics will put flesh on a patient's bones. Food is their only salvation, and if they cannot digest it in its ordinary forms, then it must be artificially digested outside of the body.

The intelligent doctor tells the man who is laboring through life with a hundred pounds of superfluous flesh to leave starchy foods out of his diet. If the advice is conscientiously followed, a marked loss of weight must ensue.

While in theory the reverse is true of a thin person, they unhappily cannot always digest starchy foods, and here it is that science has come to the rescue.

Methods for the artificial digestion of starch have long been known, but it remained for the manufacturers of Paskola to give the profession a preparation which is perfectly palatable, and the use of which can therefore be indefinitely continued without offending even the most delicate stomachs.

Not alone is Paskola a fattening food of exceptional value, but, containing as it does a normal proportion of hydrochloric acid and proteid or meat-digesting ferments, it aids the digestion of other foods.

Its sphere of usefulness is a broad one, for every day brings us face to face with this problem of nutrition, and Paskola would appear to offer a practical solution.

The Mercer Chemical Co.

To the Mercer Chemical Company, Omaha, Neb.:

Gentlemen: I am in receipt of the Terebene-Codeine Tablets. Without intending to flatter you in the least, I must say that you have succeeded most admirably with the manufacture of the tablet, and trust that your sales in the future will repay you for your trouble.

So far as the efficacy of the tablet is concerned, in cases of bronchitis, after the acute stage has subsided, in cases of bronchial cough left after "grip," but more especially in cases of chronic bronchitis and the so-called "winter coughs," you have a winner. When the cough in pulmonary tuberculosis is very troublesome and the expectoration very profuse, the tablets will give great relief, other therapeutical and hygienic measures suitable to the case being, of course, carefully attended to. The therapeutic value of Terebene needs no especial praise from me, for it is indeed too valuable a remedy to be missing from the physician's armamentarium.

Codeine is the sedative par excellence in respiratory diseases.

Terebene and Codeine must be used with judgment, and in properly selected cases will prove in combination—and which combination you have so well affected—a most valuable remedy in the cases mentioned above.

Wishing you success, I am

Very truly yours,

T. P. LIVINGSTON, M.D.

See adv. on first page.

REMEMBER that we will furnish you the JOURNAL for one year and Helbing's Modern Materia Medica for $2.50.